

FEE TRANSMITTAL for FY 2005

(Large Entity)



☐ Applicant claims small entity status

Total Amount of Payment (\$130

Complete if Known

Patent Number 6,451,534

Issue Date 17 September 2002

First Named Inventor Mark T. Keating

Examiner Name

Group Art Unit

Attorney Docket Number 2323-151

Confirmation Number

RECEIVED

OCT 31 2005

OFFICE OF PETITIONS

METHOD OF PAYMENT (check one)

- ☒ The Commissioner is hereby authorized to charge the fees indicated below or credit overpayment to Deposit Account Number 02-2135 in the name of Rothwell, Figg, Ernst & Manbeck
- ☒ Charge any additional fee required under 37 CFR 1.16 and 1.17 to Deposit Account No. 02-2135.
- ☒ Payment by check enclosed

FEE CALCULATION

1. FILING, SEARCH AND EXAMINATION FEES

| Code | Fee | Fee Description | Fee Paid |
|------|-----|---------------------------|----------|
| 1001 | 300 | Utility Filing Fee | [] |
| 1111 | 500 | Utility Search Fee | [] |
| 1311 | 200 | Utility Examination Fee | [] |
| 1002 | 200 | Design Filing Fee | [] |
| 1112 | 100 | Design Search Fee | [] |
| 1312 | 130 | Design Examination Fee | [] |
| 1003 | 200 | Plant Filing Fee | [] |
| 1113 | 300 | Plant Search Fee | [] |
| 1313 | 160 | Plant Examination Fee | [] |
| 1004 | 300 | Reissue Filing Fee | [] |
| 1114 | 500 | Reissue Search Filing Fee | [] |
| 1314 | 600 | Reissue Examination Fee | [] |
| 1005 | 200 | Provisional Filing Fee | [] |

SUBTOTAL \$

#2. CLAIMS

| Total Claims | Independent Claims | Multiple Dependent Claims | Extra Claims | Fee | Fee Paid |
|--------------|--------------------|---------------------------|--------------|--------------|----------|
| [] | [] | [] | 20* | [] x \$50 = | [] |
| [] | [] | [] | 3* | [] x 200 = | [] |
| [] | [] | [] | + | 360 = | [] |

*or number previously paid, if greater

SUBTOTAL \$

3. APPLICATION SIZE FEE

Total Sheets [] - 100 = [] / 50 = []** x \$250 =

** Number of each additional 50 or fraction thereof

SUBTOTAL \$

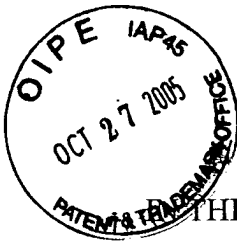
FEE CALCULATION (continued)

4. ADDITIONAL FEES

| Code | Fee Paid | Fee Description | Fee Paid |
|----------------------------------|----------|----------------------------------------------------------------------------------------|----------|
| 1051 | 130 | Surcharge - late filing fee or oath | [] |
| 1052 | 50 | Surcharge - late provisional filing fee or cover sheet | [] |
| 1053 | 130 | Non-English specification | [] |
| 1812 | 2,520 | For filing a request for reexamination | [] |
| 1804 | 920 | Requesting publication of SIR prior to Examiner action | [] |
| 1805 | 1,840 | Requesting publication of SIR after Examiner action (reduced by basic filing fee paid) | [] |
| 1251 | 120 | Extension for reply within first month | [] |
| 1252 | 450 | Extension for reply within second month | [] |
| 1253 | 1,020 | Extension for reply within third month | [] |
| 1254 | 1,590 | Extension for reply within fourth month | [] |
| 1255 | 2,160 | Extension for reply within fifth month | [] |
| 1401 | 500 | Notice of Appeal | [] |
| 1402 | 500 | Filing a brief in support of an appeal | [] |
| 1403 | 1,000 | Request for Oral Hearing | [] |
| 1451 | 1,510 | Petition to institute a public use proceeding | [] |
| 1452 | 500 | Petition to revive -unavoidable | [] |
| 1453 | 1,500 | Petition to revive - unintentional | [] |
| 1807 | 50 | Processing fee under 37 CFR 1.17(q) | [] |
| 1806 | 180 | Submission of Information Disclosure Statement | [] |
| 1809 | 790 | Filing a submission after final rejection (37 CFR 1.129(a)) | [] |
| 1810 | 790 | For each additional invention to be examined (37 CFR 1.129(b)) | [] |
| 1801 | 790 | Request for Continued Examination (RCE) | [] |
| 1802 | 900 | Request for expedited examination of a design application | [] |
| 1504 | 300 | Publication fee for early, voluntary, or normal publication | [] |
| 1505 | 300 | Publication fee for republication | [] |
| 1455 | 200 | Filing application for patent term adjustment | [] |
| 1456 | 400 | Request for reinstatement of term reduced | [] |
| 1814 | 130 | Statutory Disclaimer | [] |
| Other fee (specify) Petition Fee | | | [130] |

SUBTOTAL \$130

| | | | | | |
|----------------------|--|-----------------------------------|--|---------------------------------|--|
| SUBMITTED BY | | | | Complete (if applicable) | |
| NAME AND REG. NUMBER | | Jeffrey L. Ihnen, Reg. No. 28,957 | | | |
| SIGNATURE | | DATE | | DEPOSIT ACCOUNT USER ID 02-2135 | |
| | | 27 October 2005 | | XXX | |



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534
Patentee : Mark T. Keating et al.
Issued : 17 September 2002

Confirmation No. 6467

Docket No. : 2323-151
Customer No. : 6449

Mail Stop Petition
Director of the United States Patent
and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

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NOV 04 2005
TECH CENTER 1800/2900

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OCT 31 2005
OFFICE OF PETITIONS

**PETITION FOR CORRECTION OF
INVENTORSHIP PURSUANT TO 37 C.F.R. 1.324**

Sir:

Pursuant to the provisions of 37 C.F.R. §1.324(a), Applicants hereby petition for correction of inventorship in the subject Patent. Specifically, Applicants request the Commissioner to add QING WANG as co-inventor with the already-named inventors of record, Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Gregory M. Landes, Timothy D. Connors, Timothy C. Burn and Igor Splaswki.

In support of this petition, and in accordance with the requirements of 37 C.F.R. §1.324(b), Applicants concurrently submit the following:

- a *Statement under 37 C.F.R. §1.324(b)(1)*, signed by the inventor to be added;
- a *Statement under 37 C.F.R. §1.324(b)(2)*, signed by the current inventors;
- a *Consent of Assignee to Correct Inventorship*, by an authorized signatory of University of Utah Research Foundation, the assignee of the entire interest of Mark T. Keating, Michael C. Sanguinetti, Mark E. Curan, Igor Splawski and Qing Wang in the subject Patent;
- a *Statement Pursuant to 37 C.F.R. §3.73(b)*, by an authorized signatory of assignee University of Utah Research Foundation; and

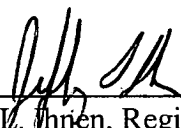
U.S. Patent No. 6,451,534
Petition for Correction of Inventorship
Pursuant to 37 C.F.R. 1.324

- a *Consent of Assignee to Correct Inventorship*, signed by an official of Genzyme Corporation, the assignee of the entire interest of co-inventors Gregory M. Landes, Timothy D. Connors and Timothy C. Burn in the subject Patent;
- a *Statement under 37 C.F.R. §3.73(b)* by assignee Genzyme Corporation;
- a check for the requisite \$130.00 fee.

If any additional payment is required, or any discrepancies in fees are noted, please charge or credit the cost thereof to Deposit Account No. 02-2135. An extra copy of this Request is attached for that purpose.

Respectfully submitted,

By



Jeffrey W. Jhnen, Registration No. 28,957
Attorney for Applicants
ROTHWELL, FIGG, ERNST & MANBECK, P.C.
Suite 800, 1425 K Street, N.W.
Washington, D.C. 20005
Telephone: (202)783-6040

2323\..151.RCI.wpd



TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Complete if Known

Patent Number 6,451,534

Issue Date 17 September 2002

First Named Inventor Mark T. Keating

Examiner Name

Group Art Unit

Total Number of Pages in This Submission

Attorney Docket Number 2323-151

ENCLOSURES (check all that apply)

☒ Fee Transmittal Form

☒ Fee Attached

☐ Amendment/Reply

☐ After Final

☐ Affidavits/declaration(s)

☐ Extension of Time Request

☐ Express Abandonment Request

☐ Information Disclosure Statement

☐ Certified Copy of Priority Document(s)

☐ Response to Missing Parts/ Incomplete Application

☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

☒ Assignment Papers

☐ Drawing(s)

☐ Licensing-related Papers

☒ Petition

☐ Petition to Convert to a Provisional Application

☐ Power of Attorney, Revocation Change of Correspondence Address

☐ Terminal Disclaimer

☐ Request for Refund

☐ CD, Number of CD(s)

☐ After Allowance Communication to Group

☐ Appeal Communication to Board of Appeals and Interferences

☐ Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)

☐ Proprietary Information

☐ Status Letter

☒ Other Enclosure(s) (please identify below):

- Petition for Correction of Inventorship Pursuant to 37 C.F.R. §1.324
- Statement Under 37 C.F.R. §1.324(b)(1)
- Statement Under 37 C.F.R. §1.324(b)(2)
- Consent of Assignee to Correct Inventorship - University of Utah
- Statement Under 37 C.F.R. §3.73(b) - University of Utah
- Consent of Assignee to Correct Inventorship - Genzyme Corporation
- Statement Under 37 C.F.R. §3.73(b) - Genzyme Corporation

REMARKS:

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OCT 31 2005

OFFICE OF PETITIONS

| | | | | | |
|----------------------|-----------------------------------|--------------------------|-----------------|---------------------------------|-----|
| SUBMITTED BY | | Complete (if applicable) | | | |
| NAME AND REG. NUMBER | Jeffrey L. Ihnen, Reg. No. 28,957 | | | | |
| SIGNATURE | | DATE | 27 October 2005 | DEPOSIT ACCOUNT USER ID 02-2135 | XXX |



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534
Patentee : Mark T. Keating et al.
Issued : 17 September 2002

Confirmation No. 6467

Docket No. : 2323-151
Customer No. : 6449

Director of the United States Patent
and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

STATEMENT UNDER 37 C.F.R. § 1.324 (b)(1)

Sir:

QING WANG hereby states that he is a joint inventor of the invention of the above-identified Patent filed in the name of Mark T. Keating et al.

The application for the above-identified patent was inadvertently filed omitting the name of QING WANG as co-inventor, through error and without any deceptive intention on my part.

Date:

[Signature]
11/4/2005

[Signature]
Qing WANG



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TECH CENTER 1600/2900

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534
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STATEMENT PURSUANT TO 37 C.F.R. §3.73(b)

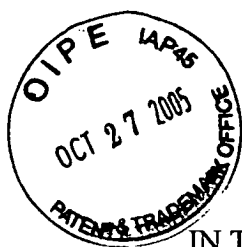
Sir:

UNIVERSITY OF UTAH RESEARCH FOUNDATION, through its undersigned signatory, who is authorized to sign on its behalf, represents that it is the assignee of the entire interest in the above-identified Patent with respect to the rights of coinventors Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Igor Splawski and Qing Wang, and that an assignment from the coinventors Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran and Igor Splawski to the University of Utah is recorded at Reel No. 009964, Frames 0732-0738 and an assignment to University of Utah Research Foundation from the University of Utah is recorded at Reel No. 009966, Frames 0867-0868. An assignment from the coinventor Qing Wang to the Howard Hughes Medical Institute, a Confirmation of Assignment from the Howard Hughes Medical Institute to the University of Utah and an assignment to the University of Utah Research Foundation from the University of Utah are being submitted for Patent Office recordation. A copy of these latter three assignments is attached.

UNIVERSITY OF UTAH RESEARCH FOUNDATION

Date: 10/6/04

By: Brent Brown
Brent Brown
Acting Director, Technology Transfer Office



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534
Patentee : Mark T. Keating et al.
Issued : 17 September 2002

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TECH CENTER 1600/2900

Director of the United States Patent
and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

CONSENT OF ASSIGNEE TO CORRECT INVENTORSHIP

Sir:

UNIVERSITY OF UTAH RESEARCH FOUNDATION, assignee of the interest of the rights of Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Igor Splawski and Qing Wang in the subject matter of the Patent identified above, through its undersigned signatory, who is authorized to act on its behalf, hereby consents to correction of the inventorship of the subject Patent to add Qing WANG as co-inventor, along with the originally named inventors, Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Gregory M. Landes, Timothy D. Connors, Timothy C. Burn and Igor Splawski.

UNIVERSITY OF UTAH RESEARCH FOUNDATION

Date: 10/06/04

By: Brent Brown
Brent Brown
Director, Technology Transfer Office

ASSIGNMENT

WHEREAS, UNIVERSITY OF UTAH, a non-profit organization duly organized under the laws of the State of Utah, with a place of business at 615 Arapeen Drive, Suite 110, Salt Lake City, Utah 84108 (hereinafter referred to as "Assignor") is the owner, by virtue of an assignment executed by co-inventor Qing WANG, of an invention in KVLQT1 - A LONG QT SYNDROME GENE, with regard to the following:

U.S. Patent 6,582,913, issued 24 June 2003;
U.S. Patent 6,451,534, issued 17 September 2002;
U.S. Patent 6,420,124, issued 16 July 2002;
U.S. Patent 6,277,978, issued 21 August 2001; and
U.S. Application Serial No. 10/368,643, filed 20 February 2003,

WHEREAS, UNIVERSITY OF UTAH RESEARCH FOUNDATION, incorporated in the state of Utah, with a place of business at 615 Arapeen Drive, Suite 110, Salt Lake City, Utah 84108, is desirous of obtaining the entire right, title and interest in, to and under the said inventions and the said applications;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto the said UNIVERSITY OF UTAH RESEARCH FOUNDATION, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said patent and applications and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said invention in any country or countries foreign to the United States, and all Letters Patent which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof and all rights of priority in any such country or countries based upon the filing of the said patent and applications for Letters Patent of the United States which are created by any law, treaty or international convention; and Assignor hereby authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said UNIVERSITY OF UTAH RESEARCH FOUNDATION, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR HEREBY covenants that it has full right to convey the entire interest herein assigned, and that it has not executed, and will not execute, any agreement in conflict herewith.

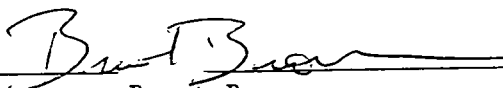
AND ASSIGNOR HEREBY further covenants and agrees that it will communicate to the said UNIVERSITY OF UTAH RESEARCH FOUNDATION, its successors, legal representatives and assigns, any facts known to it respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said UNIVERSITY OF UTAH RESEARCH FOUNDATION, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

IN TESTIMONY WHEREOF, Assignor sets its hand and seal the day and year set opposite its signature.

Date

10/06/04

2004



L.S.

Brent Brown
Director, Technology Transfer Office

ASSIGNMENT

Assignment made July 7, 2004, by Qing Wang, PhD ("Inventor") to the Howard Hughes Medical Institute, a Delaware corporation (the "Institute").

Recitals

WHEREAS, Inventor was an employee of the Institute and, as a condition of his employment, has signed the Agreement appended to the Institute's Policy on Intellectual Property (the "Intellectual Property Agreement");

WHEREAS, pursuant to the Intellectual Property Agreement, Inventor has agreed (a) to assign to the Institute all rights he may acquire in any invention, discovery, improvement, or other intellectual property, whether or not patentable or copyrightable, developed directly or indirectly as a result of a program of research financed by Institute funds or funds under the control of the Institute (each a "Subject Property") and (b) to execute any agreements that may be desired by the Institute in connection with such assignment;

WHEREAS, Inventor has, alone or with others invented "KVLQT1 - A Long QT Syndrome Gene Which Encodes KVLQT1 Which Coassembles With minK to Form Cardiac IKS Potassium Channels" which may be the subject of a patent application (the "Invention"), and the Invention is a Subject Property; and

WHEREAS, Inventor seeks to make a formal assignment of his interest in the Invention to the Institute, and the Institute desires the execution of a formal assignment of all of Inventor's right, title, and interest in the Invention.

NOW, THEREFORE, in consideration of the promises contained in and the acts performed and to be performed pursuant to the Intellectual Property Agreement and of other good and valuable consideration, the receipt of which is hereby acknowledged by Inventor, Inventor agrees as follows:

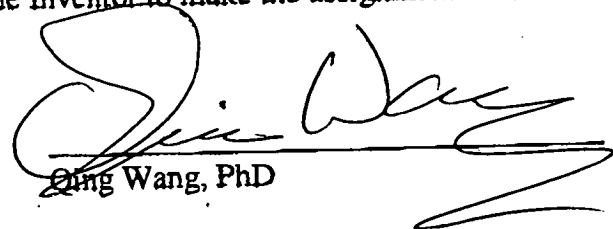
1. Assignment. Inventor hereby assigns to the Institute his entire right, title, and interest in the Invention; any United State patent applications and all corresponding foreign patent applications which are directed to the Invention (including, without limitation, the patent application and patents listed on Exhibit A), and any and all patents issued therefrom; all United States or foreign division and continuation applications based on any of the foregoing, and any and all patents issued therefrom; and all claims which are directed to the Invention and which may be contained in continuation-in-part applications or in patents which issue therefrom.

2. Cooperation. Inventor agrees to execute upon request such further assignments, documents, and other instruments as may be necessary or desirable to assign Inventor's entire right, title and interest in the Invention to the Institute and to assist the Institute (or others at the direction of the Institute) in applying for, obtaining, and enforcing patents, copyrights, or other rights in the United States and in any foreign country with respect to the Invention.

3. Parties. The terms and provisions of the Assignment shall inure to the benefit of the Institute and its successors and assigns and shall be binding on the Inventor and his heirs, personal representatives and assigns.

4. Warranty. Inventor warrants and represents that he has not entered into any assignment, contract, or understanding in conflict herewith, and that there is no other person or entity whose consent is required in order for the Inventor to make the assignment contained herein.

Inventor:


Qing Wang, PhD

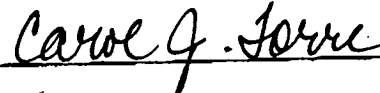
State of Ohio

County of Cuyahoga

Then personally appeared before me the above-named Qing Wang, PhD and acknowledged that he executed the foregoing instrument in his authorized capacity this 7th day of July, 2004

(SEAL)

Notary Public:



CAROL J. TORRE

(print name)

My Commission Expires: _____

U-2241
HHMI 00987

CAROL J. TORRE
Notary Public - State of Ohio
My Commission Expires May 13, 2006

Exhibit A

| Invention Title | Patent Number | Filing Date/Issue Date |
|--------------------------------|---------------|------------------------|
| KVLQT1-A Long QT Syndrome Gene | 6,582,913 | June 24, 2003 |
| KVLQT1-A Long QT Syndrome Gene | 6,451,534 | September 17, 2002 |
| KVLQT1-A Long QT Syndrome Gene | 6,420,124 | July 16, 2002 |
| KVLQT1-A Long QT Syndrome Gene | 6,277,978 | August 21, 2001 |
| KVLQT1-A Long QT Syndrome Gene | 10/368,643 | February 20, 2003 |

CONFIRMATION OF ASSIGNMENT

Confirmation of Assignment by Howard Hughes Medical Institute (the "Institute") to University of Utah ("University"), through Mark T. Keating, MD, an investigator employed by the Institute.

WHEREAS, the Institute and the University collaborate in the active conduct of medical research pursuant to a Collaboration Agreement between them dated as of October 1, 1986 (the "Collaboration Agreement");

WHEREAS, pursuant to the Collaboration Agreement, the Institute has agreed to assign to the University the Institute's rights with respect to inventions, discoveries, improvements, and other intellectual property, whether patentable or copyrightable (each a "subject property"), conceived or reduced to practice in the course of the research program conducted under the Collaboration Agreement by employees of the Institute;

WHEREAS, research conducted pursuant to the Collaboration Agreement by Dr. Keating while employed at the University by the Institute resulted in the invention of a certain subject property with respect to which patent applications were filed (the "Invention") (See Attachment 1); and


WHEREAS, in connection with the pursuit of the patent application, it is desirable to confirm that the Institute's rights in the Invention by reason of the research program conducted at the University have been validly assigned to the University by and through the assignments made by Dr. Keating listed in Attachment 1.

NOW, THEREFORE, the Institute hereby confirms that the Institute's rights in the Invention by reason of the research program conducted at the University have been validly assigned to the University by and through the assignments made by Dr. Keating listed in Attachment 1.

Executed 4/15/01

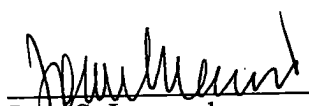
HOWARD HUGHES MEDICAL INSTITUTE

By:


Gerald M. Rubin, PhD
Vice President for Biomedical Research

ATTESTED:

By:


Joan S. Leonard
Vice President and General Counsel

Assignments Associated with U-2477/HHMI 1892

| HHMI Investigator | Patent Application Title | Filing Date | Application Number | Assignment Date |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------|-----------------|
| Mark T. Keating | Mutations in the KCNE1 Gene Encoding Human minK Which Cause Arrhythmia Susceptibility Thereby Establishing KCNE1 as an LQT Gene | 8/29/97 | 08/921,068 | 3/16/1998 |
| Mark T. Keating | Mutations in the KCNE1 Gene Encoding Human minK Which Cause Arrhythmia Susceptibility Thereby Establishing KCNE1 as an LQT Gene | 8/17/98 | 09/135,020 | 10/7/98 |
| Mark T. Keating | KVLQT1 – A Long QT Syndrome Gene | 8/17/98 | 09/135,010 | 4/27/99 |



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534
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Director of the United States Patent
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P.O. Box 1450
Alexandria, Virginia 22313-1450

STATEMENT UNDER 37 C.F.R. § 1.324 (b)(2)

Sir:

MARK T. KEATING, MICHAEL C. SANGUINETTI, MARK E. CURRAN, GREGORY
M. LANDES, TIMOTHY D. CONNORS, TIMOTHY C. BURN AND IGOR SPLASWKI hereby
state that they agree with the requested change in inventorship.

Date: _____

Mark T. KEATING

Date: _____

Michael C. SANGUINETTI

Date: _____

Mark C. CURRAN

Date: 3/26/04



Gregory M. LANDES

Date: _____

Timothy D. CONNORS

Date: _____

Timothy C. BURN

Date: _____

Igor SPLAWSKI



THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Patentee : Mark T. Keating et al.
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M. LANDES, TIMOTHY D. CONNORS, TIMOTHY C. BURN AND IGOR SPLASWKI hereby
state that they agree with the requested change in inventorship.

Date: _____

Mark T. KEATING

Date: _____

Michael C. SANGUINETTI

Date: _____

Mark C. CURRAN

Date: _____

Gregory M. LANDES

Date: 3/24/04

Timothy D. Connors
Timothy D. CONNORS

Date: _____

Timothy C. BURN

Date: _____

Igor SPLAWSKI



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534
Patentee : Mark T. Keating et al.
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Date: _____

Mark T. KEATING

Date: _____

Michael C. SANGUINETTI

Date: _____

Mark C. CURRAN

Date: _____

Gregory M. LANDES

Date: _____

Timothy D. CONNORS

Date: 03/29/04

Timothy C. BURN

Date: _____

Igor SPLAWSKI



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534
Patentee : Mark T. Keating et al.
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MARK T. KEATING, MICHAEL C. SANGUINETTI, MARK E. CURRAN,
GREGORY M. LANDES, TIMOTHY D. CONNORS, TIMOTHY C. BURN AND IGOR
SPLASWKI hereby state that they agree with the requested change in inventorship.

Date: _____

Mark T. KEATING

Date: _____

Michael C. SANGUINETTI

Date: _____



Mark E. CURRAN

Date: _____

Gregory M. LANDES

Date: _____

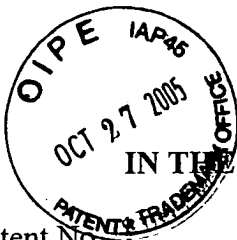
Timothy D. CONNORS

Date: _____

Timothy C. BURN

Date: _____

Igor SPLAWSKI



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534
Patentee : Mark T. Keating et al.
Issued : 17 September 2002

Confirmation No. 6467

Docket No. : 2323-151
Customer No. : 6449

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and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

STATEMENT UNDER 37 C.F.R. § 1.324 (b)(2)

Sir:

MARK T. KEATING, MICHAEL C. SANGUINETTI, MARK E. CURRAN, GREGORY M. LANDES, TIMOTHY D. CONNORS, TIMOTHY C. BURN AND IGOR SPLASWKI hereby state that they agree with the requested change in inventorship.

Date: 10/3/2005

Mark T. KEATING

Date: _____

Michael C. SANGUINETTI

Date: _____

Mark C. CURRAN

Date: _____

Gregory M. LANDES

Date: _____

Timothy D. CONNORS

Date: _____

Timothy C. BURN

Date: 10/3/2005

Igor SPLASWKI



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Date: _____

Mark T. KEATING

Date: 2-June-2005

M. Sanguinetti

Michael C. SANGUINETTI

Date: _____

Mark C. CURRAN

Date: _____

Gregory M. LANDES

Date: _____

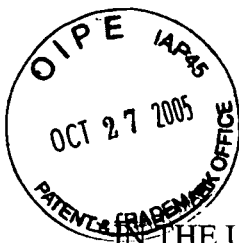
Timothy D. CONNORS

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CONSENT OF ASSIGNEE TO CORRECT INVENTORSHIP

Sir:

GENZYME CORPORATION, assignee of the interest of the rights of Gregory M. Landes, Timothy D. Connors and Timothy C. Burn in the subject matter of the Patent identified above, through its undersigned signatory, who is authorized to act on its behalf, hereby consents to correction of the inventorship of the subject Patent to add Qing WANG as co-inventor, along with the originally named inventors, Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Gregory M. Landes, Timothy D. Connors, Timothy C. Burn and Igor Splaswki.

GENZYME CORPORATION

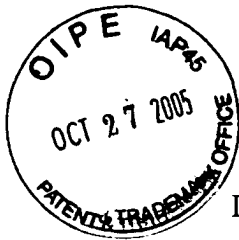
Date:

March 30, 2004

By:

Name: Thomas J. DesRosier

Title: Senior VP, General Counsel
Chief Patent Counsel



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534
Patentee : Mark T. Keating et al.
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Director of the United States Patent
and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

STATEMENT PURSUANT TO 37 C.F.R. §3.73(b)

Sir:

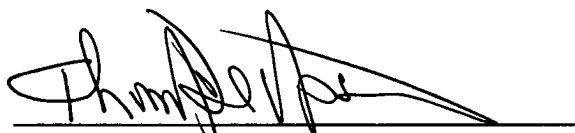
GENZYME CORPORATION, through its undersigned signatory, who is authorized to sign on its behalf, represents that it is the assignee of the entire interest in the above-identified Patent with respect to the rights of coinventors Gregory M. Landes, Timothy D. Connors and Timothy C. Burn, and that an assignment from these coinventors to Genzyme Corporation is recorded at Reel No. 009966, Frames 0874-877.

GENZYME CORPORATION

Date:

March 30, 2004

By:



Name: Thomas J. DesRosier
Title: Senior VP, General Counsel
Chief Patent Counsel